SEQUENCE LISTING

į

```
<110> Moore, Rachael
      Dudley, Adam Jeston
<120> METHODS FOR THE DETECTION OF POLYMORPHISMS IN THE HUMAN OATPF GENE
<130> 06275-422US1
<150> PCT/GB03/02487
<151> 2003-06-10
<150> GB 0213580.4
<151> 2002-06-13
<150> US 60/388,692
<151> 2002-06-14
<160> 17
<170> PatentIn Ver. 2.1
<210> 1
<211> 40
<212> DNA
<213> Artificial Sequence
<400> 1
actgtaaaac gacggccagt aatgaggctt aaactgggca
                                                                    40
<210> 2
<211> 40
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR reverse
      primer OATPF-1R
<400> 2
accaggaaac agctatgacc ggtagagatt gcttgcaccg
                                                                    40
<210> 3
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Validation
      primer
<400> 3
tggacacttc atccaaagaa
                                                                    20
```

.).

```
<210> 4
<211> 41
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR forward
      primer OATPF-2F
<400> 4
actgtaaaac gacggccagt ctatgagcca gatcttctgg c
                                                                     41
<210> 5
<211> 43
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR reverse
      primer OATPF-2R
<400> 5
accaggaaac agctatgacc cagaagcttt gaaagatttt ccc
                                                                     43
<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Validation
      primer
<400> 6
tattctcctt cctccaattc
                                                                     20
<210> 7
<211> 40
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR forward
      primer OATPF-3F
<400> 7
actgtaaaac gacggccagt tgggcaccta attgctacct
                                                                    40
<210> 8
<211> 40
<212> DNA
<213> Artificial Sequence
```

.)

```
<220>
<223> Description of Artificial Sequence: PCR reverse
      primer OATPF-3R
<400> 8
accaggaaac agctatgacc tgagggaaca tacccttggt
                                                                     40
<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Validation
      primer
<400> 9
atcagtgtgt gtggagctgc
                                                                     20
<210> 10
<211> 40
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR forward
      primer OATPF-4F
<400> 10
actgtaaaac gacggccagt gctgttctag gcaaacaggg
                                                                    40
<210> 11
<211> 16
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR reverse
      primer OATPF-4R
<400> 11
ccagtagttg ggttgt
                                                                    16
<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Validation
     primer
<400> 12
```

Į,

```
cttcttctag acatatatat
                                                                   20
<210> 13
<211> 40
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: PCR forward
      primer OATPF-5F
<400> 13
actgtaaaac gacggccagt cttcagctct ttctgtgccc
                                                                   40
<210> 14
<211> 41
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:PCR reverse
      primer OATPF-5R
<400> 14
accaggaaac agctatgacc ttccatcaaa ctaatgaggg g
                                                                   41
<210> 15
<211> 54
<212> DNA
<213> Homo sapiens
<400> 15
atttttactt taaaaactaa ctttgacaga tcagagtcaa ggaatgtgtt tata
                                                                   54
<210> 16
<211> 3077
<212> DNA
<213> Homo sapiens
<400> 16
cattgaaagg aaatggctat ctttgatctc ttcctccaga tcagagtcaa ggaatgtgtt 60
tataatggac acttcatcca aagaaaatat ccagttgttc tgcaaaactt cagtgcaacc 120
tgttggaagg ccttctttta aaacagaata tccctcctca gaaqaaaaqc aaccatqctq 180
tggtgaacta aaggtgttct tgtgtgcctt gtcttttgtt tactttgcca aagcattggc 240
agaaggetat etgaagagea eeateaetea gatagagaga aggtttgata teeettette 300
actggtggga gttattgatg gtagttttga aattgggaat ctcttagtta taacatttgt 360
tagctacttt ggagccaaac ttcacaggcc aaaaataatt ggagcagggt gtgtaatcat 420
gggagttgga acactgctca ttgcaatgcc tcagttcttc atggagcagt acaaatatga 480
gagatattct ccttcctcca attccactct cagcatctct ccgtgtctcc tagagtcaag 540
cagtcaatta ccagtttcag ttatggaaaa atcaaaatcc aaaataagta acgaatgtga 600
agtggacact agctcttcca tgtggattta tgttttcctg ggcaatcttc ttcgtggaat 660
aggagaaact cccattcagc ctttgggcat tgcctacctg gatgattttg ccagtgaaga 720
```

caatgcagct ttctatattg ggtgtgtgca gacggttgca attataggac caatctttgg 780

```
tttcctgtta ggctcattat gtgccaaact atatgttgac attggctttg taaacctaga 840
tcacataacc attaccccaa aagatcccca gtgggtagga gcctggtggc ttggctatct 900
aatagcagga atcataagtc ttcttgcagc tgtgcctttc tggtatttac caaagagttt 960
accaagatcc caaagtagag aggattctaa ttcttcctct gagaaatcca agtttattat 1020
agatgatcac acagactacc aaacacccca gggagaaaat gcaaaaataa tggaaatggc 1080
aagagatttt cttccatcac tgaagaatct ttttggaaac ccagtatact tcctatattt 1140
atgtacaagc actgttcagt tcaattctct gttcggcatg gtgacgtaca aaccaaagta 1200
cattgagcag cagtatggac agtcatcctc cagggccaac tttgtgatcg ggctcatcaa 1260
cattccagca gtggcccttg gaatattctc tgggggggata gttatgaaaa aattcagaat 1320
cagtgtgtgt ggagctgcaa aactctactt gggatcatct gtctttggtt acctcctatt 1380
tettteeetg tttgeactgg getgtgaaaa ttetgatgtg geaggaetaa etgteteeta 1440
ccaaggaacc aaacctgtct cttatcatga acgagctctc ttttcagatt gcaactcaag 1500
atgcaaatgt tcagagacaa aatgggaacc catgtgcggt gaaaatggaa tcacatatgt 1560
atcagcttgt cttgctggtt gtcaaacctc caacaggagt ggaaaaaata ttatatttta 1620
caactgcact tgtgtgggaa ttgcagcttc taaatccgga aattcctcag gcatagtggg 1680
aagatgtcag aaagacaatg gatgtcccca aatgtttctg tatttccttg taatttcagt 1740
catcacatcc tatactttat ccctaggtgg catacctgga tacatattac ttctqaqqtq 1800
cattaagcca cagcttaagt cttttgcctt gggtatctac acattagcaa taagagttct 1860
tgcaggaatc ccagctccag tgtattttgg agttttgatt gatacttcat gcctcaaatg 1920
gggatttaaa agatgtggaa gtagaggatc atgcagatta tatgattcaa atgtcttcaq 1980
acatatatat ctgggactaa ctgtgatact gggcacagtg tcaattctcc taaqcattqc 2040
agtacttttc attttaaaga aaaattatgt ttcaaaacac agaagtttta taaccaagag 2100
agaaagaaca atggtgtcta caagattcca aaaggaaaat tacactacaa gtgatcatct 2160
gctacaaccc aactactggc caggcaagga aactcaactt tagaaacatg atgactggaa 2220
gtcatgtctt ctaattggtt gacattttgc aaacaaataa attgtaatca aaagagctct 2280
aaatttgtaa tttctttctc ctttcaaaaa atgtctactt tgttttggtc ctaggcatta 2340
ggtaatataa ctgataatat actgaaacat ataatggaag atgcagatga taaaactaat 2400
tttgaacttt ttaatttata taaattattt tatatcactt acttatttca ctttattttg 2460
ctttgtgctc attgatatat attagctgta ctcctagaag aacaattgtc tctattgtca 2520
cacatggtta tatttaaagt aatttctgaa ctgtgtaatg tgtctagagt aagcaaatac 2580
tgctaacaat taactcatac cttgggttcc ttcaaqtatt actcctataq tattttctcc 2640
catagctgtc ttcatctgtg tattttaata atgatcttag gatggagcag aacatggaga 2700
ggaagatttc attttaagct cctccttttc tttgaaatac aataatttat ataqaaatqt 2760
gtagcagcaa attatattgg ggattagaat tttgaattaa tagctctcct actattaatt 2820
tacatgtgct ttttgtgtgg cgctataagt gactatggtt gtaaagtaat aaaattgatg 2880
ttaacatgcc caattattgt tcttttatga attcaatgaa tttaaaacta ttgttaaata 2940
taatactgcc ccactttaat atatgtaagc aacttcctac ttatacacga cgtqttccta 3000
aaacatgttt gaaaggtgaa tttctgaaag tctacaataa atgtaggtgt tacaacagga 3060
aaaaaaaaa aaaaaaa
                                                                  3077
```

Leu Ser Phe Val Tyr Phe Ala Lys Ala Leu Ala Glu Gly Tyr Leu Lys

50 55 60

ુ

Ser Thr Ile Thr Gln Ile Glu Arg Arg Phe Asp Ile Pro Ser Ser Leu 75 Val Gly Val Ile Asp Gly Ser Phe Glu Ile Gly Asn Leu Leu Val Ile 90 Thr Phe Val Ser Tyr Phe Gly Ala Lys Leu His Arg Pro Lys Ile Ile 105 Gly Ala Gly Cys Val Ile Met Gly Val Gly Thr Leu Leu Ile Ala Met 115 120 Pro Gln Phe Phe Met Glu Gln Tyr Lys Tyr Glu Arg Tyr Ser Pro Ser Ser Asn Ser Thr Leu Ser Ile Ser Pro Cys Leu Leu Glu Ser Ser Ser 150 155 Gln Leu Pro Val Ser Val Met Glu Lys Ser Lys Ser Lys Ile Ser Asn 170 Glu Cys Glu Val Asp Thr Ser Ser Ser Met Trp Ile Tyr Val Phe Leu 185 Gly Asn Leu Leu Arg Gly Ile Gly Glu Thr Pro Ile Gln Pro Leu Gly 200 Ile Ala Tyr Leu Asp Asp Phe Ala Ser Glu Asp Asn Ala Ala Phe Tyr Ile Gly Cys Val Gln Thr Val Ala Ile Ile Gly Pro Ile Phe Gly Phe 230 Leu Leu Gly Ser Leu Cys Ala Lys Leu Tyr Val Asp Ile Gly Phe Val Asn Leu Asp His Ile Thr Ile Thr Pro Lys Asp Pro Gln Trp Val Gly 260 265 Ala Trp Trp Leu Gly Tyr Leu Ile Ala Gly Ile Ile Ser Leu Leu Ala 280 Ala Val Pro Phe Trp Tyr Leu Pro Lys Ser Leu Pro Arg Ser Gln Ser 290 295 Arg Glu Asp Ser Asn Ser Ser Ser Glu Lys Ser Lys Phe Ile Ile Asp 310 315 Asp His Thr Asp Tyr Gln Thr Pro Gln Gly Glu Asn Ala Lys Ile Met 325 330 Glu Met Ala Arg Asp Phe Leu Pro Ser Leu Lys Asn Leu Phe Gly Asn Pro Val Tyr Phe Leu Tyr Leu Cys Thr Ser Thr Val Gln Phe Asn Ser

360 355 365 Leu Phe Gly Met Val Thr Tyr Lys Pro Lys Tyr Ile Glu Gln Gln Tyr 370 375 Gly Gln Ser Ser Ser Arg Ala Asn Phe Val Ile Gly Leu Ile Asn Ile 390 395 Pro Ala Val Ala Leu Gly Ile Phe Ser Gly Gly Ile Val Met Lys Lys 410 Phe Arg Ile Ser Val Cys Gly Ala Ala Lys Leu Tyr Leu Gly Ser Ser 430 Val Phe Gly Tyr Leu Leu Phe Leu Ser Leu Phe Ala Leu Gly Cys Glu Asn Ser Asp Val Ala Gly Leu Thr Val Ser Tyr Gln Gly Thr Lys Pro 455 Val Ser Tyr His Glu Arg Ala Leu Phe Ser Asp Cys Asn Ser Arg Cys 475 Lys Cys Ser Glu Thr Lys Trp Glu Pro Met Cys Gly Glu Asn Gly Ile Thr Tyr Val Ser Ala Cys Leu Ala Gly Cys Gln Thr Ser Asn Arg Ser 500 Gly Lys Asn Ile Ile Phe Tyr Asn Cys Thr Cys Val Gly Ile Ala Ala 520 Ser Lys Ser Gly Asn Ser Ser Gly Ile Val Gly Arg Cys Gln Lys Asp 535 Asn Gly Cys Pro Gln Met Phe Leu Tyr Phe Leu Val Ile Ser Val Ile 545 550 555 Thr Ser Tyr Thr Leu Ser Leu Gly Gly Ile Pro Gly Tyr Ile Leu Leu 565 570 Leu Arg Cys Ile Lys Pro Gln Leu Lys Ser Phe Ala Leu Gly Ile Tyr 585 Thr Leu Ala Ile Arg Val Leu Ala Gly Ile Pro Ala Pro Val Tyr Phe 595 600 Gly Val Leu Ile Asp Thr Ser Cys Leu Lys Trp Gly Phe Lys Arg Cys 615 Gly Ser Arg Gly Ser Cys Arg Leu Tyr Asp Ser Asn Val Phe Arg His 625 Ile Tyr Leu Gly Leu Thr Val Ile Leu Gly Thr Val Ser Ile Leu Leu 645 Ser Ile Ala Val Leu Phe Ile Leu Lys Lys Asn Tyr Val Ser Lys His

660 665 670

Arg Ser Phe Ile Thr Lys Arg Glu Arg Thr Met Val Ser Thr Arg Phe 675 680 685

Gln Lys Glu Asn Tyr Thr Thr Ser Asp His Leu Leu Gln Pro Asn Tyr 690 695 700

Trp Pro Gly Lys Glu Thr Gln Leu 705 710